

**GGS MPCE
WEEKLY TELECONFERENCE WITH S&L**

THURSDAY – OCTOBER 27, 2011

NPPD

John Meacham
Linda Holmstedt

Don Muhle

Bob Nitsch

S&L

Paul Hoornaert
Steve Pasimeni

Chris Hornish
Rich Stanek

Wayshalee Patel

1. Accomplishments of Last Week (Recent)

S&L

- 110901: SCR – John M. will discuss with Mick that SCR is not in S&L's scope.
-

NPPD

- John noted that Bob has been tied up with the U2 Burner project.
- John visited Sheldon Station yesterday (Wednesday, Oct. 26).
- John asked Paul and Wayshalee about the regulatory assumption report – that it's John's understanding we're waiting for testing from GE, then give S&L a week to digest. We would then incorporate what test results and comments. Paul agreed. John added that it seems like when we are on a teleconference for comments, there are a lot of comments and it gets very awkward. John suggested that a face-to-face meeting to finalize comments on the report would be more efficient than two or three iterations with phone calls. Paul agreed. John suggested holding this meeting in Columbus, at least half to a full day. John called Joe Citta yesterday, and is waiting on Joe to return the call. Paul agreed to the suggested meeting.
- Work Plan Schedule – Steve had provided an update earlier today. John noted that NPPD needs to comment; he plans to work out of the North Platte office Monday, including to review this item.
- SCR Catalyst Spec – John noted that he had found our comments (from late 2009) but did not think that we sent them to S&L. John instructed S&L not to proceed until we get the comments to them. Post-meeting note: Linda checked logs, and agrees these comments were not sent to S&L. Bob will get those comments sent.

- John acknowledged receipt of two man-hour e-mails earlier today from S&L; 1) U2 air heaters replacement; 2) white paper for installing SCR-first scenario, but not yet had an opportunity to digest the info. Steve added that S&L went through these with their leads and some of the model info, they've covered what all is involved; tried to keep it all conceptual to apply an OOM cost.
- Bob asked about white paper for installing SCR first, will this be using the existing U2 air heaters or new ones? Steve responded not new ones. New would be improvement, reduce in-leakage, but don't expect that alone. What can we do with existing FD fans, booster or second fan in that area – how to put in and maintain capability in the future ductwork, not additional fans. S&L responded that they're treating this separate from air heater issues. Bob asked if this impacts each SCR first with new air heaters – would that affect analysis? Steve said air heater paper is full of multiple considerations. As part of SCR, it's value added. If first replacement, regardless of whether SCR is done later, which could impact duct considerations. JT has assumed that air heater installation would be part of the SCR installation. Bob asked if the benefit in conjunction with SCR would be more beneficial to the project. Steve said that from operating costs, the payback is that they can evaluate and integrate into the air heater study. It has some impact on fan capacity downstream in reduction. Also, have to look at air pressure drop; one would be O&M cost, which would be power-saving cost. Paul said that air heaters and SCR-first would be a capital cost standpoint.
Two independent projects; capital cost would be higher than SCR and air heaters as one. Paul said it doesn't affect SCR-first scenario. The time to do U2 air heaters would be inside window to SCR-optional scheme. Bob said we need to do both eventually; have to have some justification. John asked if this would be a life study. Paul responded no, more a capital cost. Chris said reduced leakage and will compare pressure drop – that condition affects fan work. John asked about the practicality. There are two (2) fans for FGD, and they're going to be different rather than the same. S&L agreed they would be different. Steve said they're putting together a summary for the fans, and even for design purposes, the booster and existing fans cannot be identical. Steve will send some information, which will be applicable to SCR-first with the fan impact. Steve will send this by the end of next week, if not sooner.

- Bob asked about Elliott Avery, rep from Air Preheater's understanding that this rock is unturned, that U1 ductwork has never been evaluated pressure-wise; MPCE-wise, structural reinforced side. S&L agreed that it has not been. Referred to a drop in boiler exit gas – how would that affect basket design? They (Air Preheater?) sent us a proposal that is pretty reasonable. Bob asked S&L to add this as an action item, similar to Wheelabrator's (baghouse) study to identify which components need to be upgraded. Bob said first would be the gas inlet flow, which will be assumed on what point we pick on our curves, which ones first. S&L said they have a preliminary calc of pressure and flow of inlet and outlet all the way to the test block. Bob asked how it flows for what original air baskets were designed for. They were modeled when baghouses were installed. Steve noted that air heater pressure will be reduced by ductwork upstream; air heater manufacturer would do study. Bob said we have an MPC design study. Steve said they did NFPA85 study in the air heater inlet; he will check. Bob will send an RFI for this info. Gas inlet flow is the one that Bob is worried about. Bob will send a copy of this proposal, without price, and we need an action item similar to baghouse, just for U1.
- John M. noted that cash flow was postponed until today to discuss. Estimate is based on Fall 2015 and Fall 2016. Less aggressive schedule would move it out six (6) months. 1) Use 2011 prices and adjust escalation for new dates.
 Paul asked when we did SCR estimate if we had U2 bypass and ESP demo. Yes. John said the previous schedule, we needed two outages on each unit, so 4-year man schedule.
 Steve advised doing ESP demo in advance of air permit. John has been working with Gerry and Mick on the cost challenges; that someday we will put on MPCE. Mick should have answer by end of this year, which will allow us to get a jump on some of these jobs moving next year. No promises, but that's where we were headed before the regs hit – maybe!
- NPPD noted that we're further behind on providing comments to S&L.
 - Two man-hour documents.
 - SNCR – tentatively 11/4.
 - Initial Site Work Spec – early next week.
 - CEMS Spec – Steve noted this is on hold until awaiting NPPD comments on existing CEMS.
- John asked about ZLD spec, if S&L is familiar with Advatech design, which is a rotary atomizer. John further described; bleed stream out of the FGD. This is proprietary to Advatech, but don't know if they would sell to a separate FGD. S&L will check with Mike Rosen.
- Don Muhle is working on making the Terms & Conditions interchangeable for all the specs.

S&L Recent Submittals:

- 10/10 – RFI 064 – Info for G-5325 – BOP Buildings – Bob is working on this item.
- 10/14 – G-5330 – Transformers Spec, Rev. 3
- 10/14 – SL-0314 – ACI & WFGD Pro Forma
- 10/14 – Man-hours for SCR Catalyst Spec – Bob note of 10/17 that we need to get wording to S&L.
- 10/14 – SL-0315 – Action Item 0451 - Evaluation of Bleed Treatment & Recycle Options, Rev. 4
- 10/14 – Paul e-mail – action item 0501 – Man-hours for SCR Catalyst Spec
- 10/20 – BOP Building Spec G-5325, Rev. 1
- 10/20 – Action Item 0442 (??) – Work Plan Status w/finish dates thru end of 10/20/11. Includes completion of SCR catalyst spec to be ready for bidding.
- 10/21 – Action Item 0442 – Project Implementation Schedule
- 10/27 – Action Item 0493 – Man-hours for white paper for installing SCR first scenario
- 10/27 – Action Item 0494 – Man-hours to study U2 air heaters replacement – 650 - \$79,000, inc. one 2-person, 2-day trip, if needed
- 10/27 – MPCE Work Plan w/Hold on release of CEMS spec
- 10/28 – SL-0317 – Monthly Report – September 2011

NPPD Submittals to S&L:

- 9/19 – Trans 294 – Comments on SL-0307 – FGD Process Water Balance - Bob noted that with the ZLD equipment quoted, we need redundancy at least two trains of this type of equipment. Mike is working through Bob's comments. Bob noted that we already met with Stebbins. Bob is hopeful that we can get an updated general arrangement., esp. Options 2 & 3 for hydrobins. Bob noted that Golder Associates had said we could not haul gypsum to the ash pit. Rich Stanek explained the ZLD redundancy system. Mike added that most allow for one week of storage. Bob asked S&L to incorporate industry practices into the white paper, where it will be located, and how it inter-relates. Rich spoke about placing new FRP tanks inside the reinforced bottom of the hydrobins, which would be rather than building new infrastructures. John asked if there would be interconnecting pipes, valves, etc. Yes. Bob asked that elevator proximity also be included.
- 9/19 – Bob RFI e-mail – Plant Blackout Conditions
- 10/17 – Andrew comments on Asiatic Clam White Paper – Teleconference scheduled for Monday 10/24

2. Plans for Near Future

S&L

- Continue with Work Plan.

NPPD

- John needs to talk to Mick about CO₂; a teleconference is scheduled for October 27th. John suggested that Paul talk to Bill DePriest or Jack Daly as Pat Pope had asked for this info.
- Burner work is proceeding.
- Review S&L's submittals
 - SL-0290 – S&L action item 450 – Revised Mass Balance Flue Gas Flow Calc, Rev. 2
 - SL-0301 – Materials of Construction, Rev. 3 – SL action items 0447, 0448, 0449, 0460
- Don will be continue making the Terms & Conditions interchangeable for all the specs.
- Update ACI spec; with completion by 12/31/11.

3. Issues

S&L

- None noted.

NPPD

- Addressing the effects of the CASAPR.
- 09/29: Bob reported that we've been meeting with several activated carbon vendors, and we may need JT to do a foundation analysis for the silos.
- Reviewing / comments on S&L submittals.
- Bob's RFI of 9/19 re. Plant Blackout – Bob said this is a risk; may need to upgrade diesels, etc., and this scope of work has not been planned for. Bob referred to *RICE (Reciprocating Internal Combustion Engine)*. Chris noted that a separate diesel generator was included in the cost estimate. Bob explained how this topic came up.

4. Action Item Review

S&L

0451	Prepare water balance for FGD for NPPD comment	SL-0315 from S&L 10/14. Bob will have a couple minor comments.
0459	Capital & O&M cost estimating – OOM splitting of WFGD estimate into a U2 single unit FGD. Similar exercise for DSI, except DSI on U1.	On Hold: added task. Bob will have John M. look at this item.

0461	Prepare plant-wide water balance (not currently in scope).	On Hold
0469	Prepare a list of questions / issues re. commercial portion of bid documents; issue to Bob prior to Don/Linda. S&L telecon (ref AI 0464).	<p>09/29/11: Need to discuss with Don how NPPD wants to conform specs – coming into contract with them, etc., whether we revise spec docs, etc. or incorporate from their proposed docs. S&L recommended <u>not</u> to incorporate with contract; it may vary whether negotiations or not. Steve said since they SCR bid award, what the last step will be. John said it depends on whether it's negotiated or sealed bid, and we'll probably have both; larger specs probably have the most impact. John said this could entail a visit to cover. John asked how this impacts S&L, if at all. Steve said they have some idea of conforming and during negotiations, new agreements and drawings from bid; need final agreement. S&L would conform language to be agreed on with NPPD and vendor for the \$\$ to be adjusted. Drawings and everything relevant can also be a part of this. Vendor would work exclusively with our contractor. John noted that some vendors may take exception. S&L would reflect what adjustments there would be. S&L has assessment and what all it involves; want to be on the same page. John noted that we are using this with our contract with B&W – a fixed scope for a fixed price. Assume the FGD spec would be similar, and we may want to share lessons learned with S&L.</p>
0471	Provide Bob w/Scope Document to address CEMS for pm & HCL (Utility MACT).	S&L internal review last couple weeks.
0473	White paper on CEMS requirements f/MPCE equipment additions. Also, determine if existing CEMS equipment could be reused.	10/27/11: Already discussed.

0479	Input to FGD Spec: Contract Document Rule 10 – NPPD to advise on what drawing hard copies should be submitted by contractor in addition to electronic format.	John noted this is not a big item.
0480	Input to FGD Spec: Contract Document Rule 13 – NPPD to advise if taxes are to be included by EPC contractor & if so, on what (i.e., equipment, material, labor?).	
0482	Input to FGD Spec: OCIP vs. CCIP.	John noted that we need to discuss this item internally.
0483	Input to FGD Spec: Basis for release of retainage.	Bob asked how big FGD vendors react to retainage or milestone payments. This came up with U2 Burners contract. S&L: Suggested in-service test or warranty. Retainage ties the vendor's \$\$ up. You need a good schedule that you are actually paying for work that is done. Orders being delivered or commodity tracking each pay period. Preference depends on how long the project extends. Looking at cash flows. Also not onerous to owner. Paul added final payment approach – work still get essence of retainage, something that satisfies us that we get the result that we expect.
0486	Linda to set up a project SharePoint site.	Post-meeting note: Linda added everyone's profiles on 10/29/2011.
0487	Next face-to-face status meeting, review Scherer trip report w/Bob.	Bob & John to discuss first and reach common ground before discussing w/S&L. 10/27/2011: Linda scheduled teleconference for 11/15 @ 2:00.
0488	White paper on emergency power in case of plant blackout (Bob e-mail RFI of 9/19).	In progress – next week (11/01) high level. Rich Stanek would get involved for more in-depth.
0489	Provide NPPD info on CO2 project in TX; send info to JMM & John Swanson.	CLOSE

0491	Locate new diesel generator (D-G) on the GA.	Emergency generator – FGD contract. John asked about RICE rules. Chris recently went thru this with another job. 10/27: Different than D-G.
0492	Revisit material handling options re. limestone.	Benetech using preground limestone.
0493	White paper to address issues if SCR first w/FGD installed later.	Already discussed. S&L sent 10/27/2011.
0494	U2 air heater replacement study.	Already discussed.
0495	Contact Jim Fehr on SO2 allowance values.	Done.
0496	Close out FGD G-5301 outstanding issues.	
0497	Close out ID fan G-5303 outstanding issues.	
0498	Close out chimney G-5326 outstanding issues.	
0499	Close out material handling G-5307 outstanding issues.	
0500	Prepare draft of a Section G intro page.	
0501	Scope document & man-hours for SCR catalyst spec for bid thru award.	NPPD to provide comments before S&L proceeds.
0502	Determine appropriate time to revisit the SCR capital cost estimate.	
0503	Determine appropriate time to revisit / update the SCR implementation schedule.	Ties with SCR-first scenario.
0504	Share lessons learned with S&L re. LNB contracting process.	
0505	Cash flow: WFGD, WFGD & SCR; both aggressive & less aggressive construction schedules.	Will have date next week.
New	Provide input to project air heater U1 study.	Bob to send Air Preheater proposal w/price redacted.